

1990 ☐ 10

The effects of milk quotas on agriculture in the European Community

Study conducted at the request of the
Commission of the European Communities (Eurostat)

The quota system was introduced in April 1984 and a first evaluation of its direct and indirect effects on European agriculture carried out at the beginning of 1987.

In the light of the adjustments made to the system in December 1986, a fresh study was carried out covering not only the effects of five years of the said policy, but also the differing impact achieved in the different quota periods.

The following general conclusions may be distilled from the results of the study. For more detailed information, the reader is referred to the full publication under the above title; details of how to place orders are given at the end of this text.

1. Implementation of the quota system at Community and Member State level

The fact that, for the practical application of the quota system, there was a choice between the "A system" (allocation of quotas to individual producers) and the "B system" (allocation of quotas to individual dairies) generated both under-quota (e.g. GR -14.3% in 1986/87) and over-quota production (e.g. I +9.8% for 1987/88). For EUR 10, production was 0.8% above the quota level in 1986/87 and 1987/88.

The success of both Community and national cessation schemes varied; the response was best in F, where four million tonnes of milk were released for redistribution in the period 1984-89.

With the exception of NL and UK, quotas are linked to land, which meant that quota-trading was only limited. In NL and UK, quota prices rose three-fold in just a few years. Quota leasing is also gaining ground.

2. Effect on cattle livestock and supply balance sheets for meat

We have to distinguish here between the period 1984 to 1987 on the one hand and 1987 to 1989 on the other. Each of the periods is characterized by a sharp decline followed by a slackening-off phase.

In the period 1983-1988 (December census) the total cattle herd in EUR 10 fell by 7.8 million head from 79.7 to 71.9 million, i.e. a fall of 9.8%. Over the same period, the number of cows was down by 3.3 million head, or 10.6%. There are wide divergences here between the Member States (+1% in B, -21% in NL and DK).

The biggest fall, however, was in the dairy cow population, which makes up 70% of the total cow herd. At EUR 10 level, the number of dairy cows fell from 25.9 million head in 1983 to 21.9 million head in 1988 (December census), i.e. a fall of 4 million head or 16.8%.

The "other cows" category, on the other hand, was up from 5.6 to 6.3 million head, i.e. an increase of 0.7 million or 12.4%, growth being most marked in B (+75.7%), D (+45.2%) and IRL (+21.8%). In GR there was even a 5.3% decline. In other words, growth was recorded mainly in countries where "other cows" make up a good portion of the total cattle herd.

A fall in the dairy cow herd means a decline in the number of calves. However, the ratio of slaughtered calves to total calves produced has remained fairly constant, apart from in NL, where there has been a significant increase since 1984/85 (I reports a 60% increase, but this is mainly due to a change in statistical methodology).

As calves and heifers account for 50% of the total cattle population, it means that the decline in the number of dairy cows caused a 2.3 times greater decline for the total cattle herd.

All this indicates a decline in the degree of self-sufficiency in meat in the Community from 110% in 1984 to 101% in 1988, the likelihood being that the rate will dip to below 100% in 1989.

3. Production and deliveries of milk

From 1978 to 1983, milk production increased by 19%. With the new quota arrangement, though, the situation changed radically, with less milk in all Member States apart from I.

In March 1989, the level of deliveries was 4.1% down on the 1981 average and as much as 11.4% below the September 1983 figure. Starting from 1988/89, though, the trend has once again been upwards in a number of Member States.

Not only the cessation scheme and genetic selection, but also the elimination of less productive cows resulted in a higher annual production level per cow. This annual growth is most marked (+1.9%) on specialist dairying farms ("type 41" holdings), peaking at +3.6% for medium-sized farms with 20-29 dairy cows.

The average annual milk yield per cow in 1987/88 was 5 004 kg on "type 41" holdings (4 643 kg in 1983/84) and 4 890 kg on all dairying farms. The effect of the quota arrangement has been to smooth out regional differences in terms of specialist milk production.

4. Utilization of milk

Something like 25 % of total milk production in EUR 9 in 1987 was used fresh, the other 75 % being used for dairy products.

With effect from mid-1986, there has been a sharp fall in the production of butter and milk powder (-30% and -40% respectively over a period of 18 months). In 1987, 36% of the milk produced in EUR 9 was still being used for producing butter.

Cheese-making, on the other hand, has become more important.

As far as the average fat content of milk is concerned, the Member States can be divided into three categories:

- a) High fat content (more than 4.3 %): NL, DK
- b) Medium fat content (between 3.85 % and 4 %): F, UK, D, L
- c) Low fat content (between 3.5 % and 3.75 %): E, P, GR, I, IRL, B

Generally speaking, the increase has been no more than moderate, apart from a substantial rise in B.

5. Effect on farmers' incomes

In the wake of better management and lower input prices, intermediate consumption on "type 41" holdings (i.e. specialist dairying holdings) was down from 58.0% in 1983/84 to 55.1% in 1986/87 (EUR 10). The lowest percentage (48.2%) was recorded in B, the highest (58.9%) in DK. The biggest annual falls were in NL (-3.4%), UK (-3.2%), DK (-3.1%) and L (-3.0%). In F there was virtually no change, while IRL returned an annual increase of 5.4%.

The price of milk paid to the farmer remained fairly stable or increased only slightly between 1983 and 1987, but there was a 5% rise for EUR 10 between 1987 and 1988 (+11.1% in IRL, +2.5% in F).

Whereas the period 1976-1984 was characterized by fairly stable conditions, the ratio of the price of milk to the price of feeds has improved markedly since 1984 (of the order of +70% in NL, DK and D), due mainly to the lower prices for compound feeds.

The income situation in the milk subsector improved considerably as compared to the whole agricultural sector: over the period from 1983-84 to 1987-88 in EUR 10 the family farm income on "type 41" holdings increased twice as fast yearly as the average of all holdings (+9.0% compared with +4.1%). In 1987-88 the average family farm income on "type 41" holdings was about 50% above the average of all holdings.

Following an initial decline in meat prices as a result of increased supply, prices recovered in 1988 to the good level of 1983 (exceptions: B, D, I).

6. Structure of dairy farms and dairies

The introduction of the quota arrangement resulted in a reduction in the number of dairy farmers (-6% per year between 1983 and 1987 compared with -3.5% between 1977 and 1983). The number of small holdings (with 1 to 10 cows) fell by 55% over 1981, but these still account for 44% of the total number of dairy farmers. Viewed overall, quotas have had only a moderate effect on structural changes towards "type 41" holdings (the trend is diametrically opposite in F). The trend to larger "type 41" holdings has slackened off since introduction of the quota arrangement, except in DK, L, I and IRL. More particularly, medium-sized farms (with 20 to 40 animals) are growing in importance.

The fall in stocking rates from 2.02 LU/ha (livestock units per hectare) in 1983/84 to 1.93 LU/ha in 1987/88, and the decline in concentrated feed from 1 380 kg in 1983 to 1 280 kg per dairy cow in 1987 both point to a degree of extensification in dairy farming.

As regards diversification to other cows, holdings of this kind (EUR 9 except for Italy) increased by 4.6% between 1983 and 1985 (down in UK and IRL).

The number of pigs at EUR 9 level increased from 74 million in April 1984 to 85 million in August 1987, i.e. an increase of 15%. Most of this growth is, however, accounted for by specialist pig farms.

The number of sheep in EUR 9 increased between 1984 and 1988 by 7.2 million head, or 14% (cf. 10% increase between 1978 and 1984). Only 8% of the total number of sheep are on "type 41" holdings (exception: NL 31.8%).

As regards crop production, the 4 million fall in the number of dairy cows between 1983 and 1988 coincided with a fall of 2 million ha in the area of land under roughage crops (between 1984 and 1988). Since 1987, there has been an increase in the production of other agricultural crops.

The full text of the study "MILK QUOTAS - Their effects on agriculture in the European Community, Volumes 1 and 2" is available, in English only, from the Publications Office of the European Communities, 2 Rue Mercier, Luxembourg L-2985.

Volume I : 265 pages including 55 tables and 83 graphs: 21.75 ECU
(Catalogue number: CA-43-90-001-EN-C)

Volume II: 429 pages: annex containing figures and graphs
for individual Member States: 35.25 ECU
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